

GINCHERMAN, Ye. K. (Moscow)

~~SECRET~~

Combined therapy with methylthiouracil and microdoses of iodine in thyrotoxicosis. Klin. med. 31 no.11:83-85 N '53. (MLRA 6:12)

1. Iz Taganskoy polikliniki Upravleniya khorraschetnymi lechebnymi uchrezhdeniyami Mongorsdravotdela.

(Thyroid gland--Diseases) (Iodine) (Thiouracil)

USSR/Medicine - Roentgenology

FD 218

Card 1/1

Author : Gincherman, Ye. Z.; Ioffe, B. M.

Title : Roentgenotherapy of thyro-intoxication

Periodical : Vest. Rent. i Rad. 67-73, Mar/Apr 1954

Abstract : Roentgenotherapy is an effective means of treating thyro-intoxication. In a number of cases, the first treatment was effective, while in others, as many as four courses of X-ray radiation were necessary, depending on the form of thyro-intoxication. Preliminary treatment with micro-doses of iodine increases the effectiveness of the roentgenotherapy. Eleven references.

Institution : Polyclinical Division (Chief - Professor I. B. Khavin) All-Union Institute of Experimental Endocrinology (Director - Professor Ye. A. Vasyukova).

GINCHERMAN, Ye.Z.; IOFFE, B.M., (Moskva)

Treatment of thyrotoxicosis with roentgenologic irradiation
of the brain. Probl. endokr. i gorm. Moskva 1 no.3:71-75
My-Je '55. (MLRA 8:10)

1. Iz poliklinicheskogo otdela (zav.-prof. I.B. Khavin)
Vsesoyuznogo instituta eksperimental'noy endokrinologii (dir.-
prof. Ye. A. Vasyukova)

(HYPERTHYROIDISM, therapy,
x-irradiation of brain)
(RADIOTHERAPY, in various diseases,
hyperthyroidism, brain irradiation)
(BRAIN, effect of radiations,
x-irradiation, ther. of hyperthyroidism)

ISICHENKO, N.A.; GINCHERMAN, Ye.Z., (Moskva)

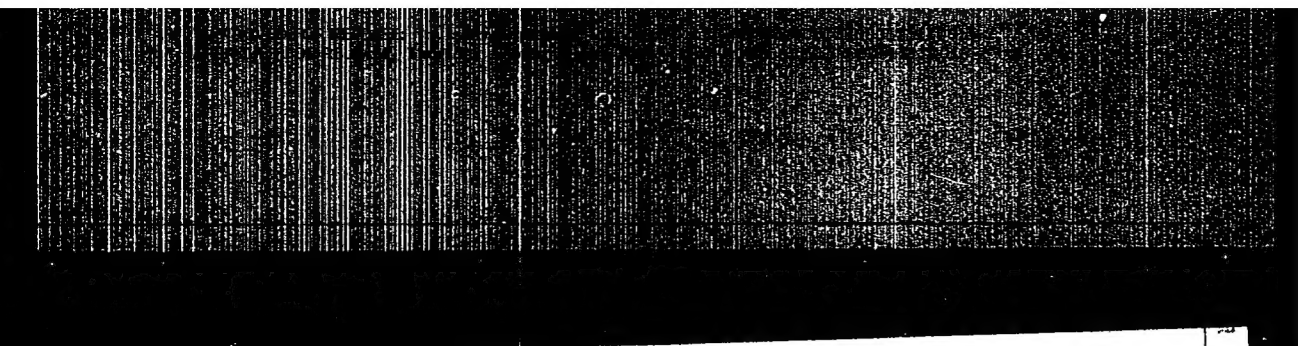
Neural factor in the pathogenesis of experimental adrenal
hypertension. Probl.endokr. i gorm. 1 no.4:60-65 J1-Ag '55.
(MLRA 8:10)

1. Iz oddela patofiziologii (zav.--prof. S.M.Leytes)
Vsesoyuznogo instituta eksperimental'noy endokrinologii
(dir.--prof. Ye.A.Vasyukova)

(HYPERTENSION, experimental,
adrenal, neural factors)

(NERVOUS SYSTEM, in various diseases,
exper. adrenal hypertension)

(ADRENAL CORTEX,
exper. adrenal hypertension, neural factors)



phocytosis, a low level of the diastolic blood pressure, a hyperpigmentation of the skin and muscular weakness. There is an interdependence between the lowering of the urea-chlor-water index, the degree of severity and the duration of the disease. After radical treatment (subtotal thyroidectomy) the majority of the patients had a normal urea-chlor-water index already 10-12 days after operation. Thus, the changes in the adrenal cortex, in the majority of the patients, are reversible. The proving of reduced adrenal cortex function in thyrotoxicosis is the premise for therapeutic use of the adrenal cortex preparations and of its hormones (cortine, desoxycorticosterone, cortisone).

Krimsky - Moscow (VI, 3)

GINCHERMAN, Ye.2.

Scientific session of the All-Union Institute of Experimental Endo-
crinology. Probl. endok. i gorm. 2 no.3:123-127 My-Je '56. (MLRA 9:10)
(ENDOCRINOLOGY)

GINCHERMAN, Ye.Z.

Reactivity of the adrenal cortex following administration of ACTH
in hyperthyroidism. Probl.endok. i gorm. 3 no.4:87-94 J1-Ag '57.
(MIRA 10:12)

1. Iz kliniki (zav. - prof. Ye.A.Vasyukova) i otdela patofiziolo-
gii (zav. - prof. S.M.Leytes) Vsesoyuznogo instituta eksperimental'-
noy endokrinologii (dir. - prof. Ye.A.Vasyukova)

(HYPERTHYROIDISM, physiology,

eff. of ACTH on adrenal cortex (Rus))

(ACTH, effects,

on adrenal cortex in hyperthyroidism (Rus))

(ADRENAL CORTEX, effect of drugs on,

ACTH in hyperthyroidism (Rus))

"The Functional State of the Suprarenal Cortex in Patients with Diabetes Mellitus."

Theses of the Proceedings of the Annual Scientific Sessions 23-26 March 1959
(All-Union Institute of Experimental Endocrinology)

From the Clinic of the All-Union Institute of Experimental Endocrinology
(Director-Professor Ye. A. Vasyukova)

GINCHERMAN, Ye.Z.; IONISYANTS, V.P.

Condition of the thyroid gland in inhabitants of Ulan Ude. Probl.
endkok. 1 gorm. 6 no. 1:107-111 Ja-F '60. (MIRA 14:1)
(ULAN UDE—THYROID GLAND)

GINCHERMAN, Ye.Z.

Functional state of the adrenal cortex in patients with diabetes
mellitus. Probl. endon. i gorm. 6 no.6:16-22 '60. (MIRA 14:2)
(ADRENAL CORTEX) (DIABETES)

GINCHERMAN, YE. Z.; EGART, F. M. (Moskva)

A mixed form of hypercorticism (Itsenko-Cushing syndrome) in association with Conn's syndrome. Probl. endok. i gorm. no.6:88-93 '61.
(MIRA 14:12)

1. Iz kliniki Vsesoyuznogo instituta eksperimental'noy endokrinologii
(dir. - prof. Ye. A. Vasyukova)

(CUSHING SYNDROME)
(ADRENAL GLANDS—DISEASES)

GIPERMAN, I. I.

Adrenocorticotrophic function of the pituitary body in thy-
rotoxicosis. Probl. endocr. gormonoter. 9 no.4:60-65 (1-Ag'63
(MIRA 17:1)

1. Iz kliniki Vsesoyuznogo instituta eksperimental'noy i klini-
cheskoy (dir. - prof. Y. A. Vasyukova).

Archives

REV. P.

5

TANASOVA, B.
Sofia (in type); Given Name

Country: Bulgaria

Academic Degree: not indicated

Affiliation: not indicated

Source: Sofia, Khristiana, No 2, Mar/Apr 61, pp 25-26

Data: "Sh. Dysenteriae 3 Have Been Separated for the First Time
in Bulgaria."

Co-authors:

RAYKOV, P., Sofia

BOZKOV, Idr.

POPOV, Khr.

NEVGENA, El.

GIRCHEV, P.

GINN, W.

New data on the morphology of the late Cretaceous *G. radiata*.
Gastropoda radiata. Paleont. zhur. no. 3: 1-10. 1971.

1. Paleont.-prirodovedicheskiy muzey AN Ukrainskoy S.S.R.

SOV/110-50-0-7/26

AUTHOR: Gindelis, YaYe. (Candidate of Technical Science)

TITLE: Reduction of the Self-discharge of Cadmium-nickel Batteries (Umen'sheniye samerazryada kadmiyevo-nikolevykh akkumulyatorov)

PERIODICAL: Vestnik Elektromyshlennosti, Nr. 8, 1958, pp 25-28 (USSR)

ABSTRACT: The theory of self-discharge of cadmium-nickel batteries is briefly discussed. It is associated with the evolution of oxygen. As the concentration of alkali in the electrolyte is increased, the evolution of oxygen on the oxide-nickel electrode is reduced and, therefore, the electrode potential falls. Negative electrodes are usually made of iron, or cadmium, or an alloy of the two. The dissolution of iron in alkali is discussed. Hydrogen is evolved during storage of the batteries only if the negative electrode contains iron. Batteries that are kept for a long time without being used should be hermetically sealed and their negative plates should not contain iron. The construction of the battery should be such as to preclude two or more cells in the battery becoming connected by internal circuits.

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SOV/110-5... 7/76

Reduction of the Self-discharge of Cadmium-nickel Batteries

and of the loss of capacity during self-discharge are given in Tables 2 and 3. When batteries are stored with the vent open, the oxygen that is formed on the fully-charged oxide-nickel electrode escapes to the atmosphere. As oxygen is formed, the potential of the electrode drops and the evolution of oxygen decreases. In practice, the accumulator can be hermetically sealed 2 - 7 days after charging. If the batteries are left unsealed too long, undesirable carbonate ions accumulate in the electrolyte by absorption of CO_2 from the air. Under-charging of batteries is no substitute for partial discharge of fully-charged batteries. Graphs of loss as a function of time are given in Fig 3 for batteries which have not been partially discharged (Curve 1) and for those which have been discharged to the extent of 0.3 of the initial capacity before self-discharge (Curve 2). The curves in Fig 3 show that with increasing time the difference between the loss of capacity of batteries that have been subject to self-discharge with and without

Card 3/4

307/110-56-6-7/26

Reduction of the Self-Discharge of Cadmium-Nickel Batteries

partial discharge gradually diminishes. After self-discharge for 30 years, batteries without iron in the negative electrode lose some of their initial capacity. If the capacity is limited by the negative electrode, it can be increased by a deep charge at normal current for 10 - 20 hours. Repeated prolonged charges do not give further increase in capacity.

There are 1 figure, 3 tables and 2 Soviet references.

SUBMITTED: October 7, 1957

1. Alkaline batteries--Maintenance
2. Alkaline batteries--Performance

Card 4/4

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515110015-2
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515110015-2"

TELEP, I.F.; GINDES, L.P.; PEL'TS, Ya.Ye.

Increase the reliability and durability of H-beams.
Standartizatsiya 28 no.6:47-48 Je '64.

(MIRA 17:9)

L 27873-66 EWT(d)/T/EWP(1) IJP(c)

ACC NR: AP5026717

SOURCE CODE: UR/0141/65/008/005/1010/1015

AUTHOR: Gindes, V. N.

ORG: Ural Polytechnic Institute (Ural'skiy politekhnicheskiy institut)

TITLE: One problem of optimum combined control

SOURCE: IVUZ. Radiofizika, v. 8, no. 5, 1965, 1010-1015

TOPIC TAGS: game theory, variational problem, function analysis

ABSTRACT: The paper discusses the problem of optimum combined control of a linear system in the case where the interests of the two participants are nonantagonistic. Each participant strives to optimize his quality criterion. It is assumed that the participants cannot enter into an agreement. Each participant must make his choice for the entire duration for the process; participant I makes his choice first, knowing only the goal and potential of participant II, and the latter makes his choice knowing that of participant I. The problem consists in finding the optimum equations of both participants. This is done by using function analysis and reducing the problem to a variational problem. "The author thanks R. Gabasov and Yu.

Card 1/2

UDC: 62-505.1

0001151

L 27873-66

ACC NR: AP5026717

I. Alimov for a discussion of the work." Orig. art. has: 22 formulas.

SUB CODE: DP,MA/ SUBM DATE: 18Jan65/ ORIG REF: 005/ OTH REF: 001

Card 2/2

L00B29-66 ELP(d)/EPF(n)-2/ELP(v)/ELP(k)/ELP(h)/ELP(l) IJP(c) WS/BC

ACCESSION NR: AP5015902

UR/0103/65/026/006/0966/0976
62-501.1

AUTHOR: Gabasov, R. (Sverdlovsk); Gindes, V. B. (Sverdlovsk)

TITLE: Optimal processes in the linear systems having two output-variable restraints

SOURCE: Avtomatika i telemekhanika, v. 26, no. 6, 1965, 966-976

TOPIC TAGS: optimal automatic control, automatic control, automatic control design, automatic control system, automatic control theory

ABSTRACT: The problem is theoretically considered of finding, among permissible controls $u(\tau) \in U(t_0 \leq \tau \leq T)$, such an optimal control $u^0(\tau)$, that the vector $x(T, u^0)$ of the system state at the moment $t = T > t_0$ has a minimum norm (length) $\|x(T, u^0)\|$, i. e.: $\|x(T, u^0)\| \leq \|x(T, u)\|$ for all $u \in U$.

or, in other terms: $\|Su^*(\tau) + e(T)\| = \min_{u \in U} \|Su(\tau) + e(T)\| = \delta^0 \quad (t_0 \leq \tau \leq T)$.

The above formula refers to this operator equation describing the state of the control system:

$$\dot{x}(t) = Su(t) + e(t) \quad (t_0 \leq t \leq T).$$

LC0829-66

ACCESSION NR: AP5015902

where: S is the linear operator that converts r -variable vector functions of control $u(\tau)$ into the elements $Su(\tau)$ of an n -variable phase space X ; the n -variable vector $a(t)$ is the uncontrollable component of the vector $x(t)$ of phase coordinates which depends on the initial conditions. Two sets of permissible controls are considered: (1) Modulus-constrained controls which also satisfy an integral limit, and (2) Controls constrained along with their first derivatives. The theory of games is used for approximate solution of the problem. Orig. art. has: 80 formulas and 1 table.

ASSOCIATION: none

SUBMITTED: 28Apr64

ENCL: 00

SUB CODE: DP, IE

NO REF SOV: 010

OTHER: 002

Card 2/2

L 29737-66 EWP(K)/EWP(H)/EWP(G)/EWP(A)/EWP(Y) 39
ACC NR: AP6018589 SOURCE CODE: UR/0140/66/000/003/0039/0044 B

AUTHOR: Gindes, V. B. (Sverdlovsk)

ORG: none

TITLE: Optimal conflicting control of a linear system

SOURCE: IVUZ. Matematika, no. 3, 1966, 39-44

TOPIC TAGS: optimal control, ~~conflicting optimal control~~, pursuit problem,
LINEAR SYSTEM, LINEAR DIFFERENTIAL EQUATION, OPERATOR EQUATION,
DIMENSIONAL ANALYSIS

ABSTRACT: The problem of optimum control of a linear system by two persons having opposite objectives is analyzed. The behavior of the control system is described by a linear differential equation

$$\dot{x} = Ax + Bu + Cv; \quad (1)$$

where $x(t)$ is an n -dimensional vector of phase coordinates (state vector); $u(t)$ and $v(t)$ are r - and p -dimensional control vectors (control responses) of the first and the second opponents respectively; A, B , and C are coefficients of matrices which are continuous functions of time; and the norms of functions u and v are constrained by the inequalities

$$\|u\| \leq 1, \|v\| \leq 1. \quad (2)$$

ACC NR: AP6018589

Controls u and v are selected for the known time interval of the control process; however, the second opponent selects the control v first while the first realizes his selection knowing the selection of the second. Further, their objectives are opposite: at a given control instant θ , the first opponent attempts to draw system (1) nearer to a given point C_0 of the phase space and the second opponent tries to increase the distance while always satisfying the condition that at given control instants t_k ($k = 1, \dots, N$) the state of the system in the phase space will not fall outside the given neighborhoods of the fixed points C_k . The optimizing distance S of the system from the point C_0 is a functional $S(u, v)$. The problem consists in determining controls u^* and v^* which optimize the functional $S^* = S(u^*, v^*)$ under the conditions defined above. Defined in this manner, the optimum control problem is considered as a pursuit problem to which the method proposed by R. Gabasov and F. M. Kirilova (Avtomatika i telemekhanika, v. 25, no. 7, 1964) is applied. The problem is reduced to the solution of the operator equation, and the condition under which the solution exists is established. Finally the solution of the optimal problem is reduced to a finite-dimensional problem which can be solved by known methods. Orig. art. has: 13 formulas.

[LK]

SUB CODE: /2/ SUBM DATE: 19Jan65/ ORIG REF: 007/ ATD PRESS: 5013

Card 2/2 CC

ACC NR: AP7000776

SOURCE CODE: UR/0208/66/005/ 5/0962/0970

AUTHOR: Gindes, V. B. (Sverdlovsk)

ORG: none

TITLE: On the problem of minimizing a convex functional in a set of finite states of a linear control system

SOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 6, no. 6, 1966, 962-970

TOPIC TAGS: minimization, optimal control, linear control system, mathematic matrix, matrix function, linear equation

ABSTRACT: The problem of seeking optimal programmed control in a linear system is examined. The value of the convex functional of the state of the system at a given time serves as the quality criterion. The control system is described by the linear vector equation

$$\dot{x}(t) = A(t)x(t) + B(t)u(t), \quad x(0) = x_0,$$

where $x(t)$ is the n -dimensional vector of the state of the system; $u(t)$ is the r -dimensional control vector; and $A(t)$ and $B(t)$ are given continuous matrix functions of dimensionality $n \times n$ and $n \times r$, respectively. The problem is reduced to a finite-dimensional one. The above equation is written as:

ACC NR: AP7000776

$$x(T, u) = F(T)x_0 + \int_0^T F(T)F^{-1}(t)B(t)u(t)dt,$$

where $F(t)$ is a matrix function, the solution of the homogeneous equation $\dot{F}(t) = A(t)F(t)$; and $F(0) = E$ is a unit matrix of order n . A method of successive approximations is described. Possible extensions are also discussed. The author thanks R. Gabasov for useful consultation. Orig. art. has: 15 formulas.

SUB CODE: 3,12/ SUBM DATE: 10Nov65/ ORIG REF: 011/ OTH REF: 002

GILBAS, Ye. Ya.

GILBAS, Ye. Ya., and MALENYUK, V. V. "On edemas as variants in tubercular distrophy from the alimentary variety", (In connection with the article by V. S. Vayl' entitled "On the different diagnosis of dysentery and tuberculosis", which appeared in Vracheb. delo, 1948, No. 7), Vracheb. delo, 1948, No. 12, paragraphs 1111-12.

SO: U-3042, 11 March 53, (Izopis 'nykh Statey, No. 10, 1949).

GINES, Ye. A.

**32757. Nekotoryye sarakternyye chyerty brutsellesha. U detey v azarbaydzhane.
Pediatriya, 1949, No. 5, s. 63-66**

80: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

GINDEV, G.

Adjustment and maintenance of the spinning regulator. p.8
LEKA PROMISHLENOST. (Ministerstvo na lekata i khranitelnata
promishlenost) Sofia. Vol. 5, No. 4, 1956

SOURCE: East European Accessions List, (EEAL) Library of
Congress, Vol. 5, No. 11, November 1956

[illegible]

FIG. 1. Correct adjustment of the lens of the flat color camera. . 10.

attestato in data 12/04/2007. L'attestato è valido, dal 12/04/2007, fino al 12/04/2008. Esp.

GINDEV, Georgi

Some short instructions on the production of the most important
types of effect yarns. Tekstina prom. 11: 1948-30 '62.

GRUBER, E.O.; GRUBER, Yu.A.

Vibrat or -percussion unit for unloading frozen ba...
Rud-tekhn.-ekon. inform. Gos. nauch.-issl. nauch. ...
form. 17-18-74-76 S 164 (17-18-74-76)

GINDICH, M.G., inzh.; MOSKOV, Yu.A., inzh.; NOVIKOV, A.I., inzh.

Using a vibratory percussion unit for unloading frozen loose
materials. Mekh. i avtom. proizv. 18 no.6:19-20 Je '64.
(MIRA 17:9)

GINDICH, N.N.

Characteristics of the root system of peppermint in relation
to its response to fertilizers. Agrobiologiya no.3:462-463
My-Je '55. (MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut
lekurstvennykh i aromaticheskikh rasteniy.

GINDICH, O.V. [Hyndych, O.V.]

Yew in Bukovina. Ukr. bot. zhur. 17 no.4:82-84 '60. (MIRA 13:9)

1. Chernovetskoye upravleniye lesnogo khozyaystva. Putilevskoye
lesnoye khozyaystvo.

(Bukovina---Yew)

GINDICH, O.V.

Bay laurel. Priroda 53 no. 11:110-111 '64. (MIRA 18:1)

1. Chernovitskaya sel'skokhozyaystvennaya opytnaya stantsiya.

L 30718-88

1 JK

ACC NR: AP6020282

SOURCE CODE: PO/0059/65/019/004/0469/0491

AUTHOR: Kurylowicz, Wlodzimierz (Professor; Doctor; Director PZl; Warsaw); Kowszyk-Gindifer, Zuzanna (Warsaw) 23

ORG: State Center of Hygiene/directed by Professor, Doctor W. Kurylowicz, Warsaw (Panstwowy Zaklad Higieny); Institute of Antibiotics, Warsaw (Instytut Antybiotykow) B

TITLE: Advances in antibiotics 6SOURCE: Postepy higieny i medycyny doswiadczalnej, v. 19, no. 4, 1965, 469-491

TOPIC TAGS: antibiotic, penicillin, tetracycline

ABSTRACT: More than 1500 antibiotics are now known. A major recent achievement is the synthesis of penicillin. Recently, a great deal of new information has been obtained on the tetracyclines and actinomycins. There exist different criteria for the classification of antibiotics: structural-chemical, biological, biogenetic, functional. The problem of the nomenclature of the antibiotics has yet to be resolved since a single antibiotic may often have as many as 15 different scientific, generic, and trade names. Orig. art. has: 3 figures, 20 formulas, and 1 table. [JPRS]

SUB CODE: 06 / SUBM DATE: 00Feb65 / OTH REF: 050 / SOV REF: 001

Card 1/1

GORDON, E.M., inch.

Method of manufacturing granulated tanning extracts, Koch.-obuv.
prom. 3 no.10:26-27 0 '61. (IPA 14:10)
(Tanning materials)

GINDIKIN, S.G.

Integral formulae for second-kind Siegel regions. Dokl. AN SSSR
141 no.3:531-534 N '61. (MIRA 14:11)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut im. V.I.
Lenina. Predstavleno akademikom P.S. Novikovym.
(Functions, Analytic) (Integrals)

MUCHNIK, A. A. and GINDIKIN, S. G.

"On completeness of system of unreliable elements realizing logical functions"

report submitted for the Intl. Symposium on Relay Systems and Finite Automata Theory (IFAC), Moscow, 24 Sep-2 Oct 1962.

VINBERG, E.B.; GINDIKIN, S.G.; PYATETSKIY-SHAPIRO, I.I.

Classification and canonic realization of complex homogeneous¹.
bounded regions. Trudy Mosk. mat. ob-va 12:359-388 '63.
(MIRA 16:11)

7/22/62/127/005/002/017
5125/3104

Author: Luchina, A. M., and Ginzkin, S. I.

Subject: Systems of systems of unreliable elements
representing functions in the algebra of logic

Source: Izvestiya SSSR. Doklady, v. 144, no. 5, 1962,
1007-1010.

Abstract: A system of functions in the algebra of logic comprises two non-intersecting parts: $A = \{f_1, f_2, \dots, f_r, \dots\}$ and $B = \{g_1, g_2, \dots, g_s, \dots\}$ consisting of completely reliable elements. All functions $f_i \in A$ are represented by the functional elements T_{f_i} which possess an upper limit ϵ_{f_i} of error probability ($\epsilon_{f_i} < 1/2$). B denotes the totality of the functions g_s and the pertinent numbers ϵ_{g_s} . In this investigation an attempt was made to set up, for each function in the algebra of logic, a system of functional elements corresponding to the functions of the

Card 1/1

in completers of a system of ...

3/1/14/005/002/017
3105/2104

and ... and having a predetermined degree of reliability. There is
1/2/1/1.

REMARKS: January 24, 1962, by I. S. Novikov, Academician

REMARKS: December 21, 1961

GINDIKIN, S.G.; KARPELEVICH, F.I.

Plancherel's measure for Riemannian symmetrical spaces of non-
positive curvature. Dokl. AN SSSR 145 no.2:252-255 J1 '62.
(MIRA 15:7)

1. Predstavleno akademikom P.S. Aleksandrovym.
(Spaces, Generalized) (Groups, Theory of)

GINDIKIN, S.G.

Analytic functions in tubular regions. Dokl.AN SSSR 145 no.6:
1205-1208 Ag '62. (MIRA 15:8)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut im. V.I.
Lenina. Predstavleno akademikom P.S.Novikovym.
(Functions, Analytic)

GINDIKIN, S.G.

U.S. GOVERNMENT PRINTING OFFICE: 1964

Trace formula and Selberg's zeta function in certain symmetrical spaces. Uch. zap. MGPI no.188:23-53 '62. (MIRA 16:9)
(Operators (Mathematics)) (Functions, Zeta) (Spaces, Generalized)

GINDIKIN, S.G.

Analysis in homogeneous systems. Usp. nat. nauk no. 4:
3-92 104. (MIRA 17:10.

GINDIKIN, S.G.; PYATETSKIY-SHAPIRO, I.I.

Algebraic structure of the field of Siegel's modular functions.

Dokl. AN SSSR 162 no.6:1226-1229 Je '65. (MIRA 18:7)

1. Submitted December 16, 1964.

L 32724-66 E+T(d)/EWP(1) IJP(c)

ACC NR: AT6010592

SOURCE CODE: UR/2582/65/000/015/0065/0084

AUTHOR: Gindikin, S. G. (Moscow); Muchnik, A. A. (Moscow)

ORG: None

TITLE: Solution of a completeness problem for a ¹⁶system of logic algebra functions with unreliable realization

SOURCE: Problemy kibernetiki, no. 15, 1965, 65-84

TOPIC TAGS: algebraic logic, cybernetics, reliability, *CIRCUIT RELIABILITY*

ABSTRACT: The authors study the completeness of logic algebra function systems with respect to the reliability of their realization. Determinate circuits of functional elements with connections which do not change during operation are studied. It is assumed that superposition and identification operations of the inputs occur without error and that errors of the various elements in the circuit are independent. The characteristics of a circuit made up of unreliably operating functional elements are discussed. Conditions for completeness with respect to reliability constants and for the general case are discussed. It is shown that a reliable circuit can be constructed for any logic algebra function. Orig. art. has: 4 figures and 8 formulas.

SUB CODE: 09 / SUBM DATE: 29Sep64 / ORIG REF: 004 / OTH REF: 003

Card 1/1 JS

I 00587-07

EWI(d) 131(c)

SOURCE CODE: UR/0044/66/000/006/V024/V024

ACC NR: AR6029273

AUTHOR: Gindikin, S. G.

TITLE: Bernshteyn polynomials connected with the functions of algebraic logic

SOURCE: Ref. zh. Matematika, Abs. 6V150

REF SOURCE: Sb. Issled. po sovrem. probl. konstruktivn. teorii funktsiy. Baku, AN AzerbSSR, 1965, 590-594

TOPIC TAGS: algebraic logic, polynomial, reliability theory, probabilistic cybernetics, circuit reliability

ABSTRACT: The author investigates one of the problems encountered during the recent years in connection with the investigation of the reliability of circuits and the development of probabilistic methods of cybernetics. Let

$$h_{\phi}(p) = \sum_{k=0}^n A_k p^k (1-p)^{n-k}$$

be the Bernshteyn polynomial corresponding to the function of algebraic logic $\phi(x_1, \dots, x_n)$. $h_{\phi}(p)$ is the probability of the event $\phi(x_1, \dots, x_n) = 1$ if the events $x_1 = 1, x_2 = 1, \dots, x_n = 1$ occur independently with a probability p . A_k is the number of binary cells containing exactly k units over which the function ϕ is

ACC NR: AR6029273

equal to 1. To each class of functions of the algebraic logic $\{\psi\}$ corresponds a certain class of Bernshteyn polynomials $\{h_\psi(p)\}$. Since according to the theorem of S. N. Bernshteyn each function $f(p)$ which is continuous over the segment $[0,1]$ and which is $0 \leq f(p) \leq 1$ and which at the ends of the segment $[0,1]$ takes only the values of 0 or 1, one can uniformly approximate by polynomials $h_\phi(p)$, then in addition to the class of polynomials $h_\phi(p)$, one can also investigate a class of continuous functions $\{f(p)\}$ which represents the closing of the class $\{h_\psi(p)\}$ relative to the uniform convergence. There appear numerous problems connected with the search for the condition that the continuous function $f(p)$ may be approximated uniformly and as accurately as desired by the Bernshteyn polynomial which corresponds to the functions of algebraic logic of a given class. Of greatest interest in connection with the solution of the reliability problem of circuits is the class of monotonic functions of algebraic logic. For that class, Moore and Shannon presented the necessary condition imposed on $h_\phi(p)$:

$$h_\phi(p) > \frac{h_\phi(p)(1-h_\phi(p))}{p(1-p)}$$

For a long time, one could not find the necessary and sufficient conditions for polynomials $B(p)$, such that $B(p) = h_\phi(p)$ where ϕ is a certain monotonic function. The results of the author produced such a condition. Namely, he was able to establish a function $S(x, y)$, $0 \leq x, y \leq 1$, such that the required condition is the form of the inequality

I. 00507-87

ACC NR: AR6029273

$$h'_\phi(p) > S(p, h_\phi(p)).$$

Such a condition (after substituting $f(p)$ for $h_\phi(p)$) separates out also a class of functions continuous over $[0,1]$, allowing a uniform approximation by the $h_\phi(p)$ polynomials corresponding to monotonic functions of algebraic logic. [Translation of abstract] A. Muchnik

SUB CODE: 12

Card

3/3

E.g/k

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(MIRA 13:6)

(MENTAL ILLNESS)

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(MENTAL ILLNESS)

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Experience in the use of psychotropic drugs in treating
psychopaths. Trudy Gos.nauch.-issl.inst.psikh. 35:321-327
№2. (MIRA 16:2)

1. 2-й Московский государственный медицинский институт имени
Н.П. Пирогова (dir. - dotsent M.K. Sirotkina), kafedra psikhia-
trii (zav. kafedroy deystvitel'nyy chlen AMN SSSR prof. O.V.
Kerbikov).

(PSYCHOTROPIC DRUGS) (MENTAL ILLNESS)

GILBERT, V.Ya.

Results of medicinal treatment of psychopaths. Probl. obshchest
(MFA 18:9)
i med. psikh. no.14:95-101 '63.

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SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,
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GINDLIS, L. M.

"Photometry of the Solar Corona on February 25, 1952"

(Total Eclipse of the Sun, February 25, 1952 and June 30, 1954, Transactions of the Expedition to Observe Solar Eclipses) Moscow, Izd-vo AN SSSR, 1958. 357 p.

"Investigation of the Luminiscence of the Green Band 5577 in the Night Sky
in the Counter-Glow Region."

report presented at the Intl. Congress on Interplanetary Matter, Jena, GDR,
7-22 Oct 1957.

Geokhimiya, 1958, No. 1, p. 96

(author Krinov, Ye. L.)

S/035/60/000/04/09/017
A001/A001

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1960, No. 4,
p. 44, # 3175

AUTHOR: Gindilis, L. M.

TITLE: Photometry of the Solar Corona on February 25, 1952

PERIODICAL: V. sb.: Polnyye solnechn. zatmeniya 25 fevr. 1952 i 30 iyunya 1954,
Moscow, AN SSSR, 1958, pp. 182-186

TEXT: The general photometry of the solar corona is described in detail. A photograph was studied photometrically which was taken in Archman by Ye. Ya. Bugoslavskaya at the total solar eclipse by means of a standard coronagraph. The results of calculating the ratio of the standard brightness to the brightness of the solar disk center are tabulated. Isophotes of the inner corona are presented. Diminution of the corona brightness with a distance from the Sun's center has been investigated. The averaged curve of brightness drop in the corona is given. It is represented well in its individual sections by the formula: $10^0 B = a/r^k$, where B is corona brightness referred to the brightness of the solar disk center, r is distance from the Sun's center in solar radii. The values of a and k for various r are tabulated.

Card 1/1

V. F. Yesipov

3(1)

AUTHORS: Pariyskiy, N.M., and Gindilis, L.M. SOV/33-36-3-21/29

TITLE: New Luminofors of Constant Brightness for the Spectrophotometry of Weak Celestial Objects. The Energy Distribution in the Spectrum of Luminofors

PERIODICAL: Astronomicheskiy zhurnal, 1959, Vol 36, Nr 3, pp 539-543 (USSR)

ABSTRACT: This is a short description of the luminofors produced in 1956 by the Laboratory of Luminescence of the Physical Institute imeni P.N. Lebedev. The β -radiation of the strontium isotope Sr^{90} is used as an activator. The mean visual brightness of the luminofors is 0.015 apostilb (the minimal is 0.0116 apostilb). The authors report on the results of the investigation of the distribution of energy in the spectrum of the new apparata. The determination of the distribution of energy was carried out by comparison with α Lyra on April 8-9, 1957 in the Astronomical Observatory of the Astrophysical Institute AS Kazakh SSR. The results are contained in a table - in ergs per 1 cm^2 in steradians per second for the interval $\Delta\lambda = 1 \text{ m}$. The brightness is of the order of 600 quanta per 1 cm^2 for a solid angle of 1 square degree per second in the interval $\Delta\lambda = 1 \text{ \AA}$. The table contains the region $\lambda\lambda 4450 - 6400 \text{ \AA}$. Because of the brightness peak at $\lambda = 4762$ the data for 4650-4850 \AA are only valid for a

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New Luminofors of Constant Brightness for the
Spectrophotometry of Weak Celestial Objects. The
Energy Distribution in the Spectrum of Luminofors

SOV/33-36-3-21/29

use of spectrographs with a small dispersion. The authors thank
Professor V.L.Levshin, L.A.Pakhomycheva, Academician V.G.
Fesenkov, M.G.Karimov, Z.V.Karyagina, Ye.N.Kotova, and P.N.
Boyko. The authors mention P.P.Parenago, and T.P.Toropova.
There is 1 table, and 15 references, 9 of which are Soviet,
2 German, 1 English, and 3 American.

ASSOCIATION: Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga
(State Astronomical Institute imeni P.K.Shternberg)

SUBMITTED: January 10, 1958 (initially)
March 13, 1959 (after revision)

S/169/62/000/004/018/103
D228/D302

3,5120

AUTHORS:

Paritskiy, N. K., Hu Jen-Jh'ao, Pomenko, B. D. and
Jindilis, L. K.

TITLE:

Changes in the ozone layer during the annular solar
eclipse of April 19, 1958, on Hainan Island

PERIODICAL:

Referativnyy zhurnal, Georgian, no. 4, 1962, 7, no-
stract 4360 (Acta Geo. Phys. Sinica, 10, no. 1, 1961,
1-16)

NOTE: A Sino-Soviet group investigated the ozone content from so-
lar-eclipse observations during the annular solar eclipse of April
19, 1958, on Hainan Island. A spectrograph, which was employed to
observe simultaneously the sodiacal light and the counter-radiance,
was used in the observations. The observational procedure and the
processing of the resulting data are described. The results show
that the content of atmospheric ozone changes conspicuously during
a solar eclipse. It is noted that the concentration rises up to
the moment half an hour after the middle of the eclipse; the lay-

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Changes in the ozone ...

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J228/D302

yer's thickness then subsequently decreases. [Abstractor's note:
Complete translation.] ✓

89326

3,1800 (1041, 1062, 1178)

S/033/61/038/001/009/019
E032/E514

AUTHORS: Gindilis, I.M. and Pariyskiy, N.N.

TITLE: On the Intensity of the Principal Emission Lines of
the Night Sky in the Region of the Gegenschein

PERIODICAL: Astronomicheskii zhurnal, 1961, Vol.38, No.1,
pp.99-106

TEXT: The intensities of the lines $\lambda 5557$, 5893 and 6300 \AA were investigated. Spectrograms of the gegenschein were obtained with a fast nebular spectrograph having a focal ratio of 1:0.7 and a dispersion of 2000 \AA/mm at 5500 \AA . The observations were carried out in 1956 at the Alma-Ata Observatory and in October, 1957 at the High Altitude Station of GAISH near Alma-Ata ($H = 3060 \text{ m}$). The spectra were obtained on DH and P Φ -3 (RF-3) plates using an exposure of one hour and a slit width of 3 mm (1956), and OAF plates using an exposure of 30 min and a slit width of 4 mm (1957). The calibration was carried out using β -particle excited phosphors of the type described by Kharitonov on p.164 of the present issue. The relative intensity of the above lines in the region of the gegenschein and in the night sky were measured at the same zenith distance. Detailed numerical results are reproduced in a table.

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E032/E514

On the Intensity of the Principal Emission Lines of the Night Sky
in the Region of the Gegenschein

The mean relative intensities of the three lines were found to be $0.99 \pm 0.01_5$, $1.02 \pm 0.03_6$ and $1.08 \pm 0.04_0$, respectively. The observations give no indication of line intensification. Strictly speaking, this result has no connection with the concept of the gegenschein as the gaseous tail of the earth. It merely shows that these lines are not excited in the tail even if a tail does exist. A study of the principal emission lines in the region of the gegenschein does not provide information about the nature of the latter. A detailed study of the spectrum of the gegenschein in a wide spectral interval is necessary. There are 1 figure, 1 table and 17 references: 8 Soviet, 9 non-Soviet.

ASSOCIATION: Gos. astronomicheskiy in-t im. P. K. Shternberga
(State Astronomical Institute imen. P. K. Shternberg)

SUBMITTED: July 11, 1960

Card 2/2

S/886/62/000/000/001/003
D207/D308

AUTHORS: Pariyakiy, N.N. and Gindilis, L.M.

TITLE: Investigation of the nature of gegenschein

SOURCE: Sbornik trudov MGU po Mezhdunarodnomu geofizicheskomu godu, astronomiya. (Moscow) Izd-vo Mosk. univ. 1962, 3-30

TEXT: The discovery and the nature of the gegenschein (counterglow) are reviewed at length. A description is given of two very-high-speed low-dispersion nebular spectrographs: HCC (NSS), which is a glass prism instrument for the visible region and HKC (NKS), which is a quartz prism instrument for the violet and ultraviolet regions. These spectrographs were designed by V.I. Bedel and M.V. Lobachev and constructed under the direction of P.V. Dobyshin in 1954. The spectrographs each had a tube which widened in front where there was a large precision-made nebular slit of 300 mm length, a prism and a camera with a simple collimator lens focused on the slit. They were used, along with a CT 63 (SP63) spectrograph

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Investigation of the nature ...

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for the 3800 - 9500 Å range, to observe the gegenschein near Alma-Ata (1956-57) and Dzheylyau (1957-59) in the USSR and on Hainan Island (1958) in China. The most interesting results have been published already. Here the authors briefly mention that the gegenschein was exceptionally intense during strong aurora (the night of 29-30th September, 1957) and that the annual variation of the ecliptical latitude of the gegenschein, observed by many workers, is due to superposition of two effects: 1) a zodiacal light band, in which the matter is concentrated in a fixed Laplace plane at a distance of 2.5 astronomical units from the Sun; 2) light of different origin, the source of which is concentrated in the ecliptic (this may be partly due to the gas 'tail' of the earth). Part of the work was carried out together with the Institut fiziki Zemli AN SSSR (Institute of Physics of the Earth, AS USSR), the Astrofizicheskiy Institut Akademii nauk Kazakhskoy SSR (Astrophysical Institute, AS Kazakh SSR), from which Z.V. Karyagina took an active part in the work, and the joint Soviet-Chinese expedition for the observation of the annular solar eclipse on April 19, 1958, in which the staff members of the Peking Geophysical Institute of the Academy of

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Investigation of the nature ...

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D207/D308

Sciences of the Chinese People's Republic, Hu Jân-ch'ao and Yu Hai-jân, participated. There are 10 figures and 10 tables.

SUBMITTED: January 2, 1960

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S/886/62/000/000/002/003
D207/D308

AUTHORS: Pariyskiy, N.N., Hu Jen-ch'ao, Fomenko, B.D. and Gindilis, L.M.

TITLE: Measurements of the ozone layer during the annular solar eclipse on April 19, 1958, on Hainan Island

SOURCE: Sbornik trudov MGU po Mezhdunarodnomu geofizicheskomu godu; astronomiya. (Moscow) Izd-vo Mosk. univ., 1962, 31-53

TEXT: The observations during the eclipse were carried out by a joint Soviet-Chinese expedition led on behalf of the USSR Academy of Sciences by A.P. Molchanov, and on behalf of the Chinese Academy of Sciences by Ch'eng Fang-yung. The expedition was organized by the Chairman of the Astronomicheskii sovet AN SSSR (Astronomical Council, AS USSR) A.A. Mikhaylov and his deputy B.V. Kulkarkin. On the Chinese side there was a special committee led by the Vice-President of the Chinese Academy of Sciences Wu Yu-hsiung. The optical group included N.N. Pariyskiy of the Institut fiziki Zemli AN

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S/886/62/000/000/002/003
D207/D308

Measurements of the ozone

SSSR (Institute of Physics of the Earth, AS USSR) and the Gosudarstvennyy astronomicheskii institut im. P.K. Shternberga (State Astronomical Institute imeni P.K. Shternberg), L.M. Gindilis of the State Astronomical Institute imeni P.K. Shternberg, Hu Jen-ch'ao and Yu Hai-jen, both of the Peking Geophysical Institute of the Academy of Sciences of the Chinese People's Republic. The optical group was led by N.N. Pariyskiy. The results were analyzed by B.D. Fomenko of the Stalingradskiy pedagogicheskii institut im. A.S. Serafimovich (Stalingrad Pedagogical Institute imeni A.S. Serafimovich) under the direction of N.N. Pariyskiy. The time service was provided by the Chinese scientists Ch'eng Fang-yung and Wang Shou-kuan. The observations were carried out at the south extremity of Hainan Island at a latitude of about $+18^{\circ}.3$. The variations in the ozone layer thickness during the eclipse were observed together with the gegenschein using a very-high-speed nebular spectrograph HKC (NKS) with quartz-lithium fluoride optical parts; the spectrograph is described in detail in the article of N.N. Pariyskiy and L.M. Gindilis. Since the NKS spectrograph was designed primarily for observations of the gegenschein and zodiacal light, a special photometric

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D207/D308

Measurements of the ozone ...

attachment was used to adapt it for ozone line measurements. The ozone spectrum (3000 - 3400 Å) showed a general tendency for the ozone-layer thickness to increase up to 1 hour after the climax of the eclipse. A detailed analysis will be published in a separate communication. There are 4 figures and 7 tables.

SUBMITTED: January 2, 1960

Card 3/3

GINDILIS, L. M.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences at the Institute of Atmospheric Physics 1962:

"Absolute Spectrophotometry of Counter-Radiance [protivosiyaniya]."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

35120

AUTHOR:

Gindilis, L.M.

TITLE:

Absolute spectrophotometry of the continuous spectrum
of counter-glow

PERIODICAL:

Astronomicheskiy zhurnal, v.39, no.1, 1962, 93-106

TEXT:

Several years ago N. N. Pariyskiy is said to have initiated absolute systematic studies of the spectrum of counter-glow in order to elucidate the nature of this phenomenon. A special spectrograph was developed for this purpose and the observations were begun in 1955. The principles of the method employed and some preliminary results were reported by the present author and Pariyskiy in Refs. 1-5 (Ref.1: Astron.tsirk., No.179, 1957; Ref.2: Astron.zh., 36, 539, 1959; Ref.3: Ibid, 36, 1078, 1959; Ref.4: Ibid, 38, 99, 1961; Ref.5: Shornik trudov Gos. astron. in-ta im. P. K. Shternberga po MGG, 1961). In the present paper the author discusses the results of a spectrophotometric analysis of some of the data obtained during 1957-1959. It is a continuation of work reported in Ref.3. All the observations

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Absolute spectrophotometry ...

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 E032/E514

were carried out at the high altitude station of GAISH in the Zailiyskiy Alatau mountains (H = 5000 m). Analysis in the range 4200-6500 Å shows that the brightness of the counter glow varies considerably with time and increases with increasing airglow intensity: both effects may be due to the same cause, for example, a corpuscular stream. The integral brightness of counter glow in the above wavelength region for magnetically quiet days was found to be $1.1 \pm 0.05 \cdot 10^{-4}$ erg/cm² sec sterad, the visual brightness was $6^m.1 \text{ deg}^{-2}$ and the average contrast is 11%. During geomagnetic disturbances the brightness was found to increase. Figs. 3 and 4 show the energy distribution (corrected for atmospheric effects) for magnetically quiet and disturbed days, respectively. These distributions were fitted with a curve of the form

$$G_0(\lambda) = c\lambda^{-x} F_{\odot}(\lambda) \quad (16)$$

(Ref.3) and a least squares calculation was found to yield

$$G_0(\lambda) = 3.03 \cdot 10^{-13} \lambda^{-1.74} F_{\odot}(\lambda) \quad (17)$$

where $F_{\odot}(\lambda)$ is the average monochromatic intensity of the solar
 Card 2/4

Absolute spectrophotometry ...

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S/033/62/039/001/01C/013
E032/E514

disc without correction for absorption lines. It is pointed out that this type of scattering of solar light would correspond to solid cosmic dust particles. Finally, the distribution shown in Fig. 6 (magnetically disturbed days) can be fitted with an expression of the form

$$G_0(\lambda) = 1.05 \cdot 10^{-13} \lambda^{-0.78} F_{\odot}(\lambda) = 3.03 \cdot 10^{-13} \lambda^{-1.74} F_{\odot}(\lambda) + \\ + 0.11 \cdot 10^{-13} F_{(c)}(\lambda).$$

All these observational results are said to be consistent with the results of I. S. Astapovich (Ref.10: Astron.tsirk., No.190, 25, 1958). Acknowledgments are expressed to N. N. Pariyskiy who initiated this work and gave valuable advice. There are 4 figures, 4 tables and 14 references: 11 Soviet-bloc and 3 non-Soviet-bloc. The English-language reference reads as follows: Ref.8: Roach, Rees, The Airglow and Aurorae, London, Pergamon Press, 1956, p.143.

ASSOCIATION: Gos. astronomicheskii in-t im. P.K.Shternberga
(State Astronomical Institute imeni P.K.Shternberg)

Card 3/4

Absolute spectrophotometry ..

33426

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E032/E514

SUBMITTED: April 7, 1961

Fig. 3

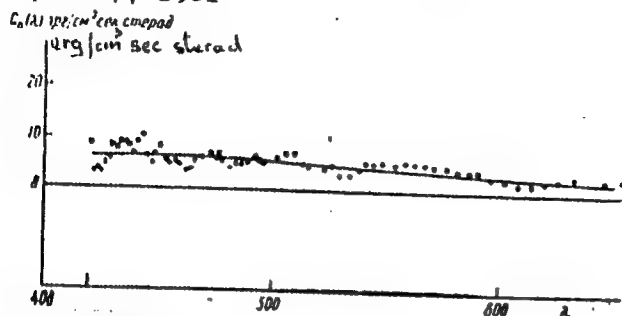
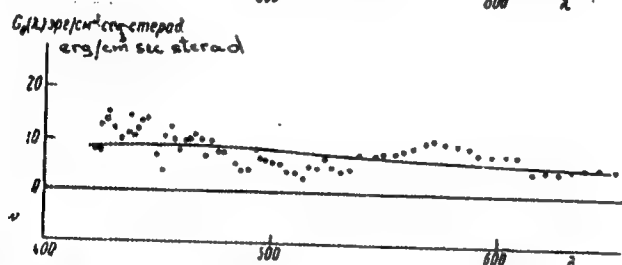


Fig. 4



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3,1550

AUTHOR: Gindilis, L.M.

TITLE: The counterglow as the effect of scattering of solar light by interplanetary dust particles

PERIODICAL: Astronomicheskii zhurnal, v.39, no.4, 1962, 689-701

TEXT: This paper is concerned with the optical theory of counterglow in which the latter is interpreted as being due to the scattering of solar light by interplanetary dust particles. The analysis is mainly concerned with the photometric profile of counterglow and the energy distribution in its spectrum. In order to account for the known properties of counterglow, the following assumptions must be made. It is necessary that a certain fraction of dielectric particles must be present in order to account for the enhanced brightness at the antisolar point. The spatial distribution of the dust may be either constant or decreasing in accordance with the r^{-1} law, or finally, there may be a tendency for the dust to concentrate in the asteroid region. The latter gives the best agreement with the observed photometric profile at angular distances of 180 to 160° from the sun. The

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The counter-glow as the ...

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size distribution of the particles $n(a)da = Ca^{-p} da$ is such that $p = 4$ or 5 . When $p = 4$, 90 to 95% of absorbing particles with an albedo of $A \sim 0.1$ are required in addition to the dielectric particles. When $p = 5$ the counter-glow may be explained by scattering off dielectric particles only. This value of p gives better agreement with the observed energy distribution in the counter-glow spectrum. A higher value of p would not yield the observed photometric profile. In the case of a constant or r^{-1} particle density, the number of particles with radii greater than 0.6μ is found to be approximately $5 \cdot 10^{-13} \text{ cm}^{-3}$. If the dust is preferentially accumulated in the asteroid region, then the average concentration in that region should be of the order of 10^{-12} and their concentration at the earth's orbit then turns out to be less than 10^{-13} cm^{-3} ($a > 0.6 \mu$). The general conclusion is that with suitable adjustment of the particle parameters the optical theory is capable of explaining the main feature of counter-glow. There are 4 tables and 1 figure. ✓

ASSOCIATION: Gos. astronomicheskii in-t im. P.K.Shternberga
(State Astronomical Institute imeni P.K.Shternberg)
SUBMITTED: June 28, 1961
Card 2/2

FEDOROV, Ye.P.; KUCHEROV, N.I.; BATRAKOV, Yu.V., kand.fiz.-matem.nauk;
KOSTYLEV, K.V., kand.fiz.-matem.nauk; MIKHEL'SON, N.N., kand.
fiz.-matem.nauk; GINDILIS, L.M., kand.fiz.-matem.nauk

In the Astronomic Council; conferences and plenums, Vest. AN SSSR
34 no.9:112-120 S '64. (MIRA 17:10)

1. Chlen-korrespondent AN UkrSSR (for Fedorov).

ACCESSION NR: AP4017623

S/0033/64/041/001/0116/0121

AUTHOR: Gindilis, L. M.; Karyagina, Z. V.

TITLE: Energy distribution in the counter glow spectrum in the region $\lambda\lambda 3900-6500 \text{ \AA}$

SOURCE: Astronomicheskii zhurnal, v. 41, no. 1, 1964, 116-121

TOPIC TAGS: spectrometry, astrophysics, nebular spectrograph, counter glow, counter glow spectrum

ABSTRACT: The spectral investigations of the counter glow, which have been made over the past few years with the aid of the Pariyskiy nebular spectrograph, have made it possible to determine several characteristic peculiarities of this phenomenon. Together with the conclusion regarding the absence of any intensification of primary emission lines of the night sky in the region of the counter glow, the presence of a continuous counter glow spectrum has been established. Energy distribution in the counter glow spectrum in the region $\lambda 4600-6500 \text{ \AA}$ was found to be very close to the energy distribution in the zodiacal light spectrum; however, in the $4300-4500 \text{ \AA}$ region a clearly expressed excess was detected in comparison with the spectrum of zodiacal light. It was also determined that

ACCESSION NR: AP4017623

the energy distribution in the counter glow spectrum in the $\lambda\lambda 4250-6500 \text{ \AA}$ region corresponds to scattered solar light with an intensity proportional to λ^{-x} , where x lies within the range 1-2, with the most probable value $x = 1.74$. Observations of the energy distribution in the counter glow spectrum in the $\lambda\lambda 3900-6500 \text{ \AA}$ region were made by N. N. Pariyskiy with a nebular spectograph (glass and quartz cameras) during 1957-1959. The energy distribution curve is given in Figure 1 of the Enclosure. It can be represented by $I(\lambda) = c\lambda^{-x}E_0(\lambda)$, where $E_0(\lambda)$ is the non-atmospheric spectral illumination from the Sun at the mean distance from the Earth to the Sun. In the computations, the value of $E_0(\lambda)$ as given by Johnson (F. S. Johnson, Jour. of Meteor., 11, 431, 1954) is adopted. The parameter x is computed by the method of least squares: $x = 1.28 \pm 0.16$. The continuous spectrum of the counter glow is the solar spectrum scattered by solid particles of interplanetary dust. Orig. art. has: 2 figures and 1 formula.

ASSOCIATION: Astronomicheskii in-t im. P. K. Shternberga (The K.P. Shternberg Astronomical Institute); Astrofizicheskii in-t. Akademii nauk KazSSR (Astrophysical Institute, Academy of Sciences, KazSSR)

SUBMITTED: 17Dec62

DATE ACQ: 18Mar64

ENCL: 01

Card 2/4

L 3670-66 EWT(a)/FED/FSS-2/EWT(1)/FS(v)-3 DD/CW/WS-4

ACCESSION NR: AP5014060

UR/0384/65/000/001/0018/0027

AUTHOR: Gindilis, L. M. (Candidate of physico-mathematical sciences) 51
B

TITLE: The possibilities of communication with extraterrestrial civilizations 4

SOURCE: Zemlya i Vseleennaya, no. 1, 1965, 18-27

TOPIC TAGS: extraterrestrial radio wave, communication signal identification, radio source, radio telescope, radio wave propagation, space communication, space environment

ABSTRACT: A detailed analysis is presented of the possibility of communicating with extraterrestrial civilizations. Modern instruments and methods of astronomy have transferred this possibility from the realm of fantasy to the field of theoretical and experimental research. Modern instruments can penetrate to a distance of 10 million light years. Within this radius exist 10^{10} galaxies or $\sim 10^{21}$ stars. Life need not necessarily be similar to the terrestrial. The number of civilizations in our galaxy can be represented by

$$N_c = N k_1 k_2 p_1 p_2 / (l_0)$$

where N is the number of stars in the galaxy and N_0 is the number of civilizations,

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k_1 is the factor accounting for the presence of a planetary system, k_2 is the factor accounting for the life-supporting possibilities, p_1 is the probability of life existing under favorable conditions (probability = 1), p_2 the probability that life has evolved to an intelligent form, and $f(t_c)$ the factor accounting for the durability of a civilization. The last factor has supporters for both the short range and long range theory. The value for our civilization may be 0.25-0.5. The most precisely determinable factor is k_1 , and many feel that k_1 is ~ 1 . The factor k_2 is difficult to evaluate, but probably lies in the limit 10^{-6} - 0.06. This would give 10^5 - 10^{10} planets in our galaxy capable of supporting life. It is likely that p_2 also equals 1. The possibilities of civilization existence extends from one in every five neighboring galaxies to 10^5 per galaxy. The communications could be of three types: a) direct contact or exchange of information; b) contacts along a communications channel; c) contacts of a combined type (sending out a space probe and receiving information). The possibilities of these three types are explored for different distances. It is concluded that for distances of less than 100 light years all three types are possible and that for longer distances one-way communication is favored. Relativity

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considerations are used in computing the times involved. Radio waves present the most favorable form of communication. The strength of the radio signal depends both on distance and on the transmitter energy output, so the civilizations are classed in three types, depending on the energy requirements: type K I (approximately the same technical level of development as our civilization) has an energy requirement of $10^{19} - 10^{24}$ erg/sec; K II with 10^{33} erg/sec, which means that this civilization has completely mastered the energy of its star; and K III with an energy requirement of $10^{44} - 10^{45}$ erg/sec, which means that it has mastered the energy of the entire galaxy. For communications with earth-like (K I) civilizations, radiations near the wavelength of hydrogen (21 cm) seem to be a natural choice, and it is used in experiments with passive listening (such as Green Banks in the USA). Although results have not been favorable to date, equipment is being improved and the program continued. Probability calculations for two type K I civilizations contacting each other with this random scanning of space were made. If type K II or K III civilizations exist, the possibility of communications with them is greatly enhanced. Orig. art. has: 5 figures, 2 tables, and 2 formulas.

ASSOCIATION: none

SUBMITTED: 00

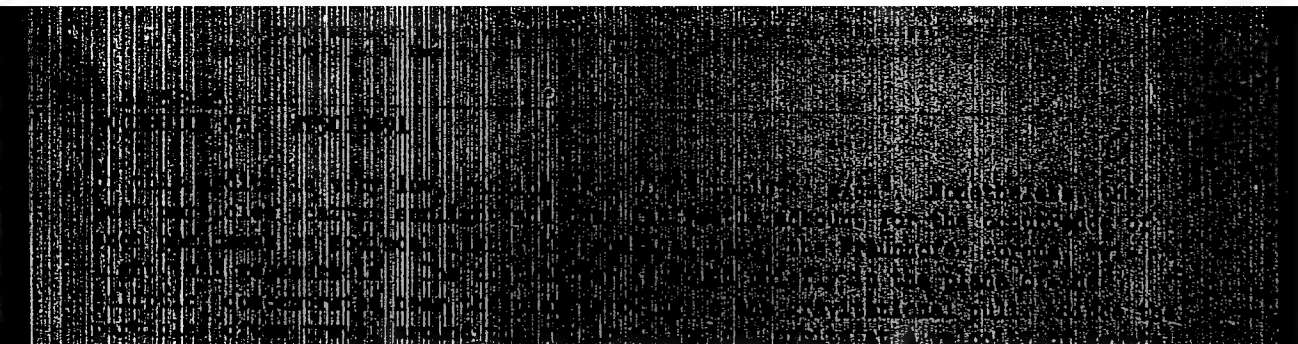
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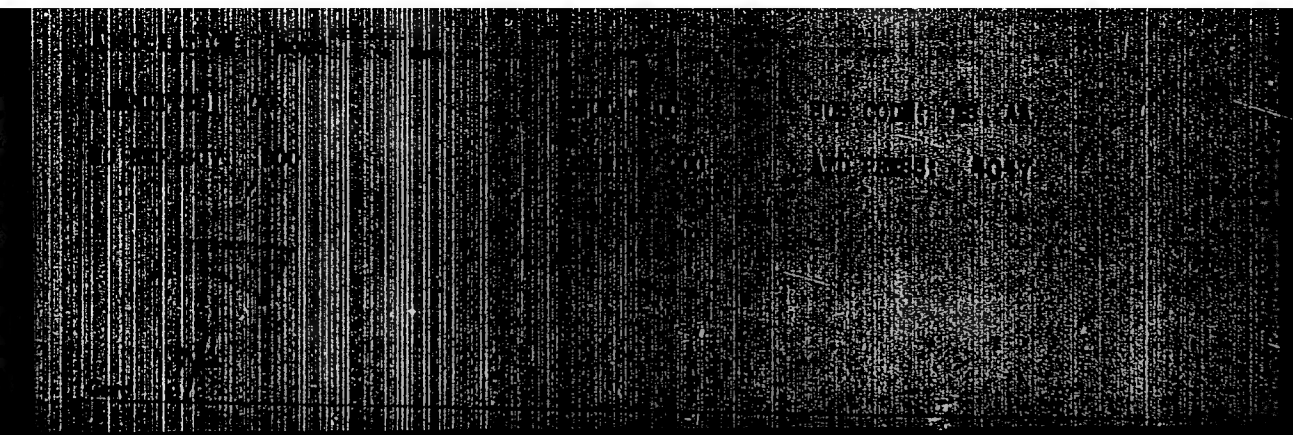
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ENCL: 00

OTHER: 000

SUB CODE: AA,EC





L 36266-66 EWT(1)/FOC GW

ACC NR. AR6015223

SOURCE CODE: UR/0269/65/000/012/0058/0058

AUTHOR: Gindilis, L. M. 37

TITLE: Absolute measurements of the constant luminescence spectrum
of the night sky ✓

SOURCE: Ref. zh. Astronomiya, Abs. 12.51.446

REF SOURCE: Sb. Polyarn. siyaniya i svecheniye nochn. neba. No. 11.
M., Nauka, 1965, 26-34

TOPIC TAGS: luminescence spectrum, night sky, atmospheric optic phenomenon ✓

ABSTRACT: The measurement results of the absolute spectrum of the continuum of the night sky in 4200--6500 zone are presented. These measurements were carried out in Zailiyskiy Ala-Tau Mountains at an altitude of 3000m in September and October 1957. [Translation of abstract]
[NT]

SUB CODE: 03

Card 1/1

UDC: 551.593.5

ACC NR: ~~AP 5018437~~
AP7002456

SOURCE CODE: UR/0384/65/000/003/0063/0063

AUTHOR: Gindilis, L. M. (Candidate of physico-mathematical sciences)

ORG: none

TITLE: Discovery of a variable radiation source

SOURCE: Zemlya i Vseleennaya, no. 3, 1965, 63, 69

TOPIC TAGS: ~~astronomy~~, stellar astronomy, radio astronomy, ~~radio astronomy~~,
stellar radiation, cosmic radiation source, ~~astronomic personnel~~, ~~stellar radiation~~ ^{emission}

ABSTRACT: Since September 1964, Soviet radio astronomers G. B. Sholomitskiy, M. G. Darionov, and N. F. Sleptsova of the State Astronomical Institute im. P. K. Shternberg have been carrying out systematic measurements of radio emissions coming from stellar radiation source CTA-102. In order to avoid errors inherent in absolute measurements, radiation from this source was compared with the radiation of radio source 33-48, observed simultaneously. The measurements showed that the ratio between the emissions from CTA-102 and 3C-48 varied within a range of 30%. Since the radiation intensity of 3C-48 was shown to be uniform, the variability of the CTA-102 radio source appears to be an undisputed fact. Orig. art. has: 1 figure.

SUB CODE: 03/ SUBM DATE: none/

PROKOP'YEV, BORIS KONSTANTINOVICH, A.A.; GINZBURG, V.M.

Identification of human chromosomes. Izv. AN SSSR Ser. biol.
no. 2:188-200 Moscow 1965. (MIRA 1842)

S. Institute of Radiation and Physico-Chemical Biology, Academy
of Sciences of the U.S.S.R., Moscow.

BOGDANOV, Yu.F.; IORDANSKIY, A.B.; GINDILIS, V.M.

Problem of multistrand chromosome model. Genetika no.5:82-100
N '65. (MIRA 19:1)

1. Institut molekulyarnoy biologii AN SSSR, Moskva. Submitted
August 25, 1965.

SOV/98-59-8-2/32

14(10,11), 18(5)

AUTHORS: Naymushin, I., Head, Gindin, A., Chief Engineer, Shergin, B., Secretary of the Party Committee, Georgiyevskiy, S., Secretary

TITLE: Open Letter From the Workers on the Bratsk Construction Project

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 8, pp 3-4 (USSR)

ABSTRACT: As mentioned in the opening article, this is an open letter sent to all construction sites, industrial undertakings, technical institutes, and to the workers on the Krasnoyarsk GES project in particular. Based on the resolutions of the June Plenum of the Central Committee of the Soviet Communist Party, and born of a desire to hasten the fulfillment of the plan, the letter calls for help to be extended by more experienced teams to those in a less fortunate position. In particular, it calls for aid from the workers of the town of Angarsk, the Glavmosstroy and the Glavmospromstroy materialov of the Mosgorispolkom (Moscow City Executive Committee) in this field of housing construction on the Bratsk site, admitting its inexperience in this sphere; from the Krivoy Rog ore-mining team in the construction of the Korshunov

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Open Letter From the Workers on the Bratsk Construction Project

iron-ore combine (output 12 million tons a year); from timber combines, in order to help with the construction of the largest wood-processing enterprise in the USSR (output 4 million cubic meters a year); and from the Academy of Construction and Architecture of the Ukrainian SSR in the field of the removal of earth and rock by means of explosives. In return, the Bratsk workers on the Padun Falls offer their help and experience to all who need it, especially to the workers on the Krasnoyarsk site on the Yenisey, who lag behind the former somewhat in the fulfillment of their part of the plan to provide a network of power stations in Siberia.

ASSOCIATION: Bratskgesstroy (Bratsk Construction Project) (Naymushin): Bratskiy gorkom KPSS (Bratsk Town Committee, CPSU (Georgiyevskiy))

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